



# Energy Action Plan Update on Natural Gas

California Public Utilities Commission  
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## Positive Natural Gas Outlook

- Drop in spot and futures gas prices since July 2008
- Long-term demand expected to be flat
- In-state and interstate pipeline transmission capacity well in excess of demand
- Expected new interstate pipeline in 2011, provides major access for California to low-priced Rockies supplies, diversifies supply access, improves reliability
- Possible new storage capacity additions in coming years would add significant storage capacity in California
- So. California firm access rights system now in operation
- Biogas potential warrants continued examination

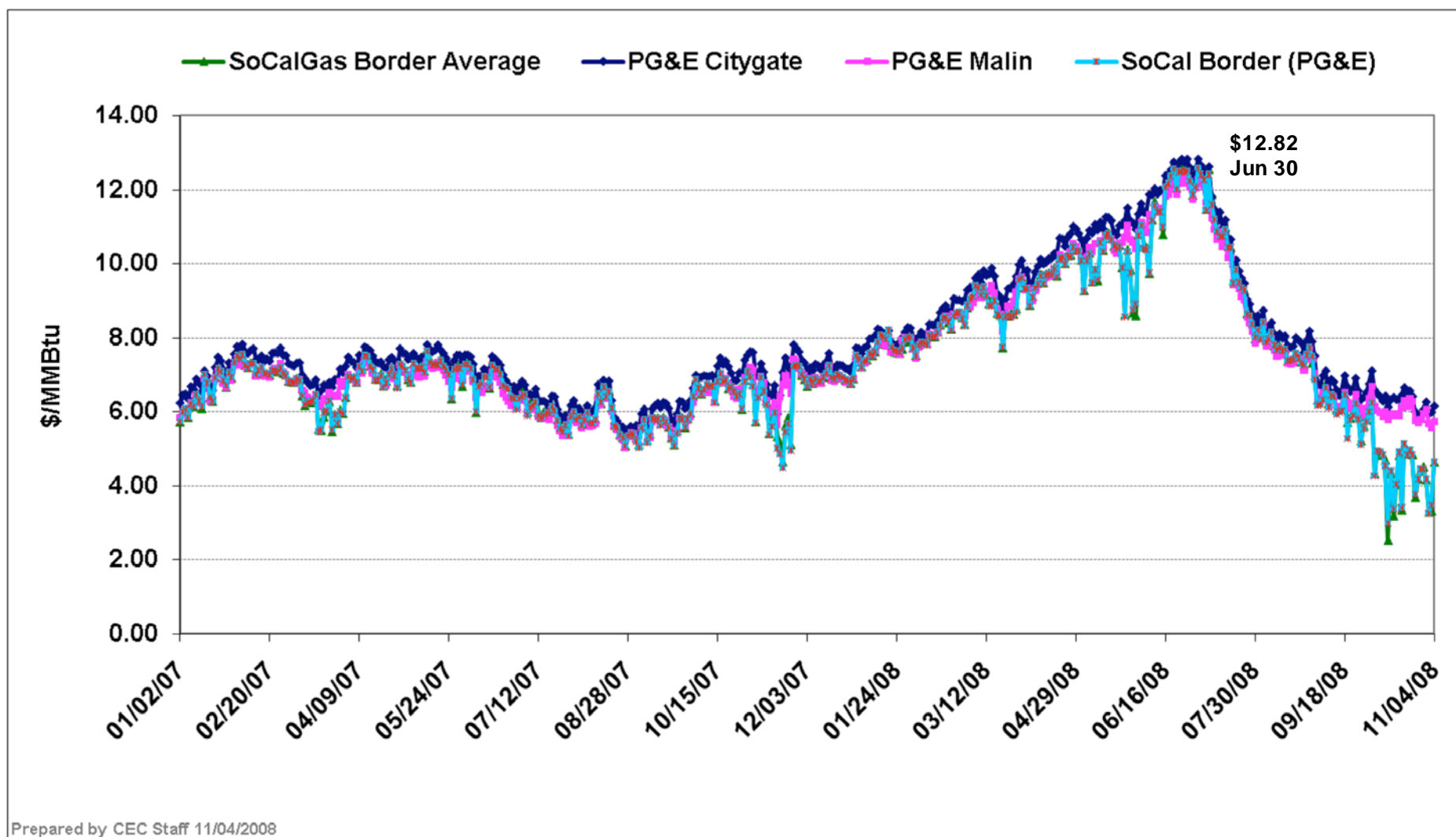


## Natural Gas Prices Fall but Still Volatile

- February 2008 EAP Update noted that natural gas prices were higher and more volatile, with little expectation of a price decrease in the near future
- Prices peaked in summer, and then fell by 50% over late summer and fall months
- Higher domestic production (7% higher than last year!), lower oil prices, and poor economy likely spurred the fall in prices
- Increased domestic on-shore production offset damage to production by hurricanes and falling imports from Canada and LNG
- California prices somewhat lower than national average
- Need for continued caution: gas prices may remain volatile in years ahead, lower prices may moderate pace of drilling

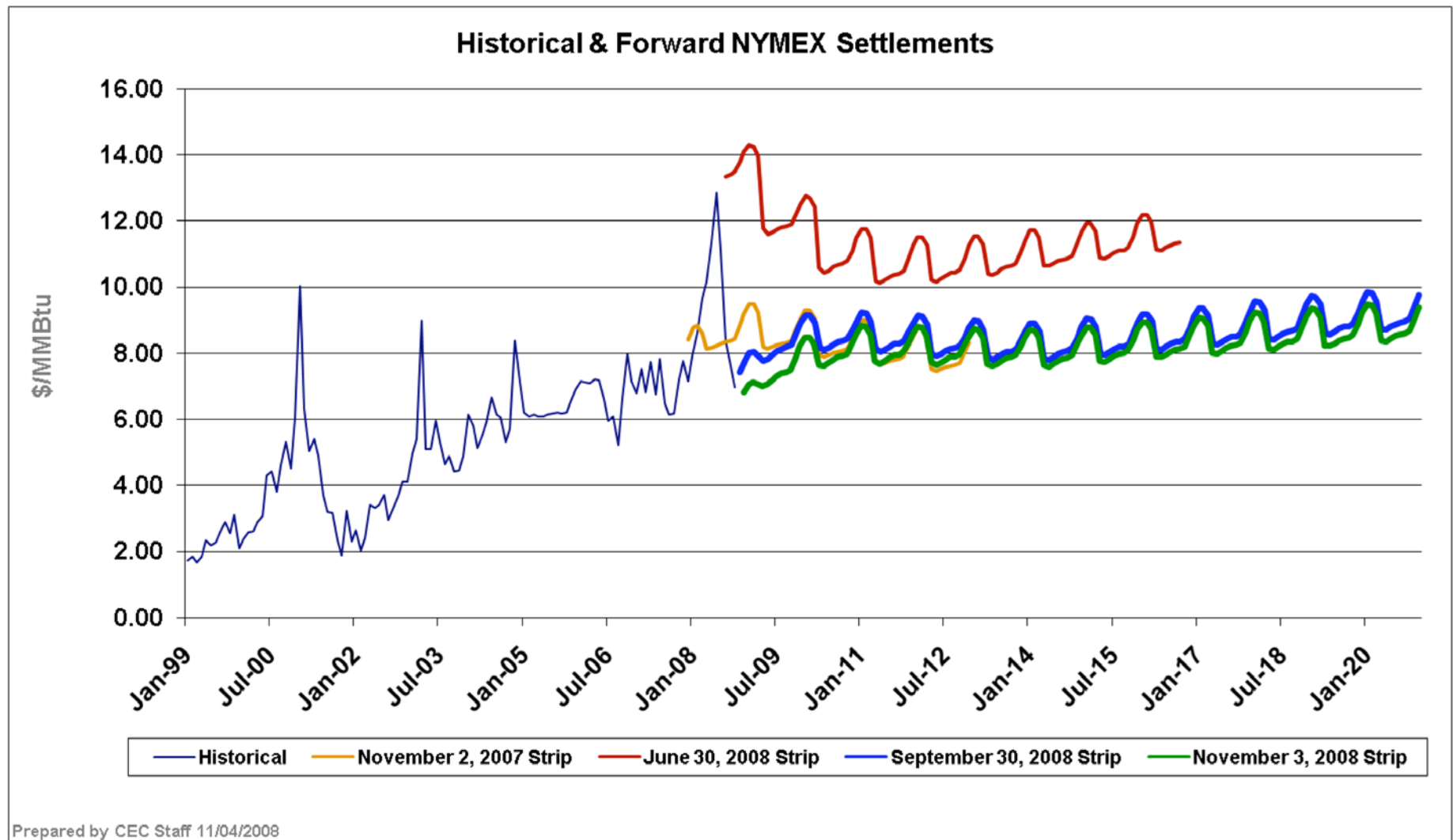


# CA Natural Gas Spot Prices





# U.S. Natural Gas Futures Prices





## No Big Increases Seen in Long-term Natural Gas Demand

- California natural gas utilities' latest forecast of demand in 2008 California Gas Report shows flat long-term demand (only a 0.1% per year increase through 2030)
- Energy efficiency and renewables programs have significant impact in moderating demand – utilities estimate 330 Bcf/yr by 2015 or almost 15% of demand
- Forecast assumes 20% RPS target by 2012 – Governor now supports 33% target by 2020
- Solar water heating incentive being examined by CPUC, pilot program underway
- Impact of GHG reduction efforts on long-term gas demand unclear
- State transmission capacity well in excess of average demand, storage capacity helps meet peak demand



## Major gas transmission and storage capacity additions possible

- In November 2008, CPUC approved PG&E capacity contracts on proposed Ruby interstate pipeline from Rockies for core gas customers and for electric generation
- Ruby (1.3 billion feet per day pipeline) to provide major new access to low-priced Rockies supplies, competition with Canadian supplies, diversifies supplies available to northern California, improves reliability
- Kern River Pipeline also planning 145 MMcfd expansion in 2010, from the Rockies to southern California
- Major storage capacity additions possible in coming years: Gill Ranch, Sacramento, SoCalGas, Wild Goose
- Local transmission constraint in SoCalGas area (Imperial Valley) to be alleviated in 2009
- PG&E also adding local transmission capacity to improve delivery reliability



## LNG Terminal in Baja Operational, but Major Supplies Not Expected in Near-term

- Sempra LNG Costa Azul facility in Baja Mexico became operational in May 2008
- Increased domestic production moderating prices, pushing off LNG supplies into later years
- California prices likely to be lower than global LNG prices in near-term - significant LNG deliveries to California from Costa Azul or other LNG terminals unlikely
- In October 2008, CPUC found that LNG supplies should compete directly with domestic supplies, and special guidelines or procedures for approval of utility LNG supplies weren't needed at this time





## “Firm access rights” system implemented in southern California

- In December 2006, CPUC adopted a “firm access rights” (FAR) framework for SoCalGas’ and SDG&E’s transmission system
- Implementation began on October 1, 2008
- FAR system provides firm delivery rights into SoCal/SDG&E transmission system, assures firm transmission shippers, including LNG, certainty that their supplies will be delivered at certain receipt points
- Some receipt points are more heavily utilized than others
- Establishes major new pricing point (SoCal citygate)
- FAR system similar to what has existed in northern California for 10 years
- FAR system will provide a signal as to which receipt point capacity should be expanded
- CPUC unaware of any significant problems to date



## Biogas potential warrants continued examination

- Biogas potential in California includes methane production from waste from cattle, landfill, organic waste
- Reduces methane (a significant GHG) production, provides new source of in-state supply
- Estimates range from tens to hundreds of MMcfd (roughly 1-5% of California demand)
- Bioenergy Interagency Working Group working collaboratively to explore potential, carry out Bioenergy Action Plan, including biogas



## California Needs to...

- Examine storage field applications and support as appropriate
- Keep an eye on natural gas commodity prices
- Ensure transmission infrastructure remains robust and provides diverse supply access, and curtailments remain very rare
- Continue to examine and pursue biogas potential
- Maintain and strengthen EE and renewables programs, examine solar water heating incentives
- Monitor FAR system – 18-month review in 2010
- Assure that gas utility delivery rates are reasonable
- Intervene at FERC as necessary on interstate pipeline proceedings